

**OBSERVATIONAL STUDY TOUR:**

**COMPETITIVE WATER  
UTILITY MANAGEMENT**

Prepared by

Institute for Public-  
Private Partnerships

under subcontract to

The Urban Institute  
2100 M Street, NW  
Washington, DC 20037

UI Project 06610-102  
March 1996

Prepared for

East European Regional Housing Sector Assistance Project  
Project 180-0034

U.S. Agency for International Development, ENI/EEUD/UDH  
Contract No. EPE-0034-C-00-5110-00, RFS No. 102

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### ***Introduction and Background***

This study tour was arranged and conducted for a group of Albanian officials who comprise two task forces of Albanian officials. The task forces were established in September 1995 by Deputy Prime Minister Deshamir Shehi, who is also Minister of Construction and Tourism. The study tour was carried out by the Institute for Public Private Partnerships (IP3) as the first task order under a subcontract to the Urban Institute.

One of the Albanian task forces is in charge of formulating a strategy for privatization of the water supply and wastewater disposal sector in Albania, the "Privatization Task Force." The other, the "Regulatory Task Force," is responsible for putting into place a legal framework that will enable the creation of an independent regulatory commission - the first ever in Albania. There was a total of 11 Albanians in the group, including a program officer employed by Urban Institute whose office is located in the Ministry of Construction and Tourism (MOCT). Participating as an observer for the entire study tour was Mr. Steve Swanson, a consultant for The Urban Institute, who will take up assignment as a full-time resident Infrastructure Coordinator, based in Tirana, Albania.

The mandate of the regulatory commission will be to protect the public interest by establishing performance standards of private operators or contractual service providers, and by selecting a methodology for setting tariffs sufficient for cost recovery.

The February study tour program was designed to sustain the rapid market reform accomplishments of the Albanian authorities following confirmation of the political decision taken in the summer of 1995 to privatize the water and wastewater sectors in Albania.

Working under a predecessor contract, IP3 staff and consultants had conducted a series of USAID-financed workshops and technical assistance assignments, starting in 1994 and continuing through 1995. Those assignments identified the conditions needed to encourage private investors to assume capital risk by investing in water infrastructure projects in Albania. The basic concepts and issues relating to public-private partnerships in utility services were explored in these engagements.

When President Sali Berisha decided that Albania would proceed with the privatization of the water and wastewater sectors, Minister Shehi appointed the task forces to implement this political decision. During the same period, other technical assistance arranged by IP3 resulted in the first contracting out for solid waste collection in Tirana.

In addition to conducting workshops in Albania and including certain key Albanian decision-makers in topical U.S. study-tours, IP3 consultants under a predecessor contract had helped to draft basic legislation including a concession law and a water resources law. IP3 coordinated the legal drafting exercise with other related legislation, including an Energy Industry Regulation Act prepared by a World Bank Consultant, and a new Public Procurement Law for Albania that had been enacted earlier, in April 1995.

An important benchmark in the water sector privatization endeavor was negotiation early in October 1995 with a World Bank Mission on terms for an IDA credit to rehabilitate the water system in Tirana. The distinctive feature of the October agreement with the Bank was a determination to proceed with facilitating maximum private investment at the earliest possible stages, initially by commercializing ("corporatizing") of the water enterprises under the jurisdiction of the Ministry of Construction and Tourism.

These steps were the prelude to recruitment of World Bank consultants who will detail the sequence of the water sector privatization process, initially by preparing bid and tender documents to invite prospective strategic investors. These consultants will be financed under a Project Preparation Facility (PPF) that will be included in the IDA credit. In addition, parallel Memorandum of Understanding with USAID provided that USAID consultants would assure institutional support to the privatization effort through training, providing advice as requested by the Government, and conducting a series of targeted technical assistance assignments, especially those related to the detailed design and establishment of an independent regulatory commission.

By the target date of December 15, 1995, which had been set by Minister Shehi under direction of the President, IP3 consultants had completed drafts of:

- A foundation regulatory law;
- A modified corporatization law which departed from the usual practice of turning over Government entities scheduled for privatization lock, stock, and barrel to the Ministry of Finance, and which instead provided for joint Ministry of Finance/Ministry of Construction and Tourism oversight; and
- A special law **reversing** the inclusion of water and wastewater enterprises from an earlier "negative" list of so-called "strategic" Governmental activities that were not to be privatized.

These legislative drafts were then submitted to the Council of Ministers later in December for their endorsement and presentation to the Parliament for enactment on a priority basis.

The World Bank consultants' procurement strategy, as spelled out in their Terms of Reference, is to prepare for the competitive selection of a leading world class international water utility firm. The firm selected, while initially serving as a management contractor, would later participate as an equity investor and would eventually become the majority shareholder in a privately owned water utility. Some minority portion of the shareholdings were to be set aside for distribution to employees and the public under the Albanian Mass Privatization program.

### ***Study Tour Program and Goals***

The observation study tour conducted in February 1996 was focussed to familiarize the participants with a diversified sampling of the best U.S. practices of private, investor-owned utilities, showing how their management is driven by market incentives (satisfying



shareholders) to operate efficiently by containing costs to assure a profit. For this to work in a monopolistic industry, it is necessary to provide a proper legal and regulatory environment.

The study tour provided demonstrations of best practices for government regulatory agencies. This was shown to the participants as a necessary function of government: establishing a regulatory regime that protects the public through the setting of performance standards, providing dispute settlement mechanisms, and determining and enforcing a cost-recovering tariff schedule, set according to an accepted methodology.

The tariffs set must permit a reasonable rate of return to be earned on investment by the private operator/owners. Earnings are considered to be "reasonable" if they are commensurate with the investment risks, while being mindful of the benefits to the owner of providing a vital utility service under monopolistic conditions. The tariffs charged have to be logically defensible before the regulatory authority, and ultimately making possible public acceptance.

The timing of the study tour in February was driven by the need to keep up program momentum, as well as the necessity of synchronizing the USAID-supported training and technical assistance with the critical path of events established by the World Bank program of consultant selection, terms of reference refinement, mobilization, and task performance.

The Study Tour on Competitive Water Utility Management conducted during nine working days over a two-week period, including a series of site visits to state and regional regulatory commissions, and to private and/or public utility operators subject to control by these agencies.

Preparation of the participants for the site visits was provided through round table discussions led by the same IP3 consultants who had traveled earlier to Albania, participating as conference presenters or technical assistance experts formulating the major policy recommendations and helping to draft the key legislation. This included Messrs. Matt Hensley, Phil Giantris, Mark Belcher and David Levintow.

Substantive presentations during these round table discussions included case studies of a number of comparable private/public partnerships in various countries, chosen so that "lessons learned" from these cases were relevant to Albania.

A handbook was prepared by the IP3 Program Manager, Richard Pinkham, which was distributed to each of the participants. This included basic background readings and explanations of the study tour program, with the key documents translated into the Albanian language. Loose-leaf design of the handbook enabled the addition of handouts and other materials accumulated throughout the study tour.

The round table discussions were keyed to a preliminary work plan developed by IP3 Consultant Belcher. The work plan identified the three major components deemed necessary for setting up an independent regulatory commission:

- Creation of the administrative framework;
- Development of rule-making and adjudicative procedures; and
- Establishment of rate-setting methodologies.

Also presented in the round table portions of the program was analysis of the basic elements and purposes of the draft legislative framework which, it was understood, had been accepted by the Council of Ministers, and was on the Albanian Parliamentary agenda, scheduled for enactment shortly after the return of the participants to Albania.

It also became apparent during the study tour as the various regulatory officials stressed the importance of their consumer advocacy role, that the Albanians would have to include major concern for public awareness/public education functions throughout their program. It was seen that effective and persuasive public relations would help legitimize the work of the commission. It was needed to establish credibility to convince consumers to pay higher cost-related tariffs in exchange for vastly more reliable and higher quality, sustainable service.

### ***Tennessee Public Service Commission Site Visit***

One of the highlights of the scheduled site visits was an all-day session with the Tennessee Public Service Commission (PSC), in Nashville, Tenn. The initial presentation by the Commission Chairman Keith Bissell explained that the PSC had a multi-sectoral jurisdiction including transportation (it began as a railroad commission) particularly trucking companies, electric power, telecommunications, gas pipelines and distribution, and water.

Mr. Bissell stressed that the PSC's objective was to maximize competition, for example by licensing competing providers in the same service area (such as telecom and electric power), or where there were natural monopolies and heavy up-front costs such as in water and gas limited competition, to permit reasonable rates of return letting companies recover their costs of production and to allow the private investors make a profit.

Because the work of the Commission has a direct impact on the public, Mr. Bissell said that they maintain strict ethical standards, avoiding any real or perceived conflict of interest between the Commission staff and members and the regulated industries. He explained that financing of the Commission is provided from collection of permitting fees and licenses, as well as from fines collected for violations committed by the companies regulated, as well as by having each regulated company pay 0.5 percent of its gross revenue.

Bissell added that all meetings of the Commission and its hearings are open to the public, and that in everything they did they were held accountable to the state legislature. All records of decisions and actions are made available to the public. Most business of the Commission is conducted through public hearings, attended by stakeholders, consumer groups, the media and the general public.



To protect the private property rights of the companies regulated, no actions are taken by the PSC without due process, with all parties having the right to be heard and present their views. Bissell described the judicial review process in the US, explaining that if the PSC improperly took adverse action, the courts would rule that the commission has confiscated private property, and will overturn its decisions. The Commission has three members, with a majority vote needed to carry decisions.

On administration, Commissioner Bissell said they only recruit qualified persons for staff positions, and since their effectiveness depends upon public confidence in the integrity of its staff, commissioners closely supervise performance of division heads. Mr. Bissell mentioned that all the utilities PSC regulates have highly competent and dedicated staff, and have access to the best consultants, all of which requires the Commission staff to perform at the highest standards. The commissioners review, accept, modify, or reject all reports and findings prepared by PSC staff, he said, describing their hands-on management style.

Mr. Bissell explained the structure and function of the PSC, with the rate-setting division headed by a Ph.D. in economics, and the other divisions—consumer relations, computer services, and such—all staffed by fully qualified personnel. He explained that operating expenses are largely met by charging fees to the utilities of about 0.5 percent of their gross revenue.

He explained that the PSC varies the formula used for rate setting to that most suitable for the industry, with historical rate of return the most common basis, except for the telecom industry, for which price caps are used. After responding to questions, Bissell turned over the remaining presentation to senior members of the PSC staff, which included Mr. Chris Christian, the Administrative Law Judge.

Judge Christian described the adjudicative process in detail, tracing the steps through the filing of petitions, setting of hearing dates with wide notification, and establishing a docket for attendance by all interested parties. The next step is often a pre-hearing conference, to either informally settle the matter or narrow the unresolved key issues requiring a decision. The judge described how he or the entire commission heard cases, and how at every stage, parties can file motions such as post-hearing briefs or exceptions to rulings made during the hearing.

When rulings are made, the losing side can file motions for reconsideration, after which time the final order of the Commission is rendered. The judge described settlement conferences and other techniques used to reach informal resolution at various stages of the proceedings, and described the rights of the parties to seek judicial review in the court system if unsatisfied with the ruling.

Judge Christian also described a change in approach by the Commission within the past two years. Whereas formerly, the PSC staff used to take the consumer side in hearings and disputes between customers and utilities, the new scheme has a separate Consumer Advocate office, with the staff of the Commission now considered to be impartial experts providing professional analysis and recommendations. The judge explained that throughout

every process and procedure, the PSC must balance consumer concerns and utility company interests in the common good.

The next presenter was Mr. Chris Klein, the chief economist, who said that the legal guidance he operates under is to set "just and reasonable" rates, but these are no place defined in the law. His objective therefore, is to allow the utilities to earn a fair rate of return on their investment, meaning that revenues must recover costs plus a fair return on investment. The basic formula used is that "Revenues = Cost," which is defined as operating expense, plus taxes, plus return on investment. Revenues are generated by the rate multiplied by the quantities of product sold to the customers.

Mr. Klein then explained how they calculate the rate base, from a determination of the historical value, which is based upon original cost minus depreciation. A fair rate of return, he said has to relate to the cost of capital, so that his guidelines for setting just and reasonable rates are those which yield a fair rate of return. Mr. Klein said this rate of return is based on a formula calculated from revenues minus operating costs minus taxes, all divided by the rate base.

Mr. Klein added that these calculations were not done in a vacuum, and that he always compared his numbers with comparable rates of return for similar businesses of equivalent risk. He said he constantly compares the regulated company's current rate of return on investment with a projected fair rate of return, so that he can achieve an equality between the actual earned rate of return and what would be a fair rate of return. In case of a gap, he tries to understand the reasons for greater or lesser performance than expected.

Mr. Klein pointed out that utilities can file petitions with the PSC if they believe their rate of return is too low, and that either upon consumer petition or on their own initiative, the staff may investigate to determine if the rate of return is too high. He said the consumer advocate's office can initiate such petitions. He said the filing of such petitions starts a process which often results in a contested hearing before the Commission.

Mr. Klein also mentioned that rate setting is a dynamic process involving periodic review and petition filings. Water companies, he said, almost always file new petitions every two years, but in the case of telephone companies which have not petitioned the last 5 to 10 years, the Commission staff will initiate a rate review at least every three years.

Mr. Klein and his staff member, Mr. Novak, then presented slides showing how they calculate the cost of capital, using a model company with a simplified capital structure for the purposes of his presentation. The slides showed how a typical company's capital structure would be made up of long-term debt (stocks, bonds, or debentures with maturities more than one year and ranging from three to five years). Long-term debt is thus defined as the amount that stays stable or may increase over time, and that contracts underlie this debt. Short-term debt would be bank loans such as for working capital, or commercial paper, which fluctuates from month to month, both in amount and in interest rates paid. The final component of the capital structure used in the example was the common stock or equity. In the example cited,





the company had 55 percent long term debt; 5 percent short term debt; and 40 percent equity shares.

To determine the cost of capital, one would take each class of the capital structure, and multiply the percentages shown above by the interest cost rate, in order to get the weighted cost rate. In the example given:

Long-term debt	55 percent	times	7 percent	=	3.85 percent
Short-term debt	5 percent	times	3 percent	=	0.15 percent
Common stock	40 percent	times	10 percent	=	4.00 percent
	100 percent				8.00 percent

(Cost of capital, i.e., weighted cost ratio)

In the balance of his presentation, and in response to questions, Mr. Klein explained how he would do the calculations if there were no stock market or capital market in the country (by using companies in Europe whose stock was traded, deemed to be comparable), and that in bidding out for services, one could learn what rate of return companies expected to receive for the type of business they performed.

Mr. Novak spent time explaining how the Commission would need to calculate revenue based upon receipts from customers minus uncollectables, less exempt units supplied (such as hospitals or for fire fighting), plus income from other sources, etc. He also explained how the utilities either meter usage or calculate charges based on monthly flat rates modified by the diameter of the service line connected to the customer.

In determining reasonableness of operating expenses, Novak said Commission staff would audit salaries and wages, distribution costs, water treatment costs (such as chemicals, energy use, testing etc.), administrative and general expenses, depreciation, taxes, and maintenance. This would enable a finding to be made as to whether the company was operating efficiently. Sometimes, he said, the Commission hires consultants to perform such audits. He also said that the Commission conducts compliance audits to make certain that companies are meeting performance standards.

Mr. Novak provided an example of how the commission calculated the total investment of a particular company, by adding the value of the utility plant in service, plus the construction under way; any utility facilities being leased, plus working capital on hand.

Mr. Novak showed that from this total deductions would be taken (such as accumulated depreciation; accumulated amortization of leased equipment or facilities; accumulated deferred charges, customer advances (deposits), and contributions from building developers in aid of construction of new services).

The final presentation of the day was made by the PSC director of the consumer division who explained how they support customers who have complaints against the utilities, such as service or billing mistakes, etc. Commissioner Bissell's assistant Ms. Susan Callaghan, coordinated the entire presentation, and handled a question and answer session.

In sum, the Albanian participants received an extremely thorough description of all the major aspects involved in the operation of the PSC, with a particular emphasis on how they dealt with water utilities. Mr. Bissell indicated that, in his capacity as chairman of the Ad Hoc International Affairs Committee of the National Association of Regulators of Utility Companies (NARUC), he would be able to identify other utility regulators who could help the Albanians in various aspects of their future needs, should such assistance be deemed appropriate or desirable.

### ***Tennessee-American Water Company Site Visit***

Follow-up to the briefing by the Tennessee PSC was a site visit to a major, private investor-owned water utility regulated by the PSC, the Tennessee-American Water Company, in Chattanooga, TN.

The presentation was organized by Richard Sullivan, Vice-President and General Manager, assisted by Bill Hobbs, Operations Manager and Dan Bailey, Business Manager. The Albanian participants were greeted upon their arrival at the company headquarters by Mayor Gene Roberts of Chattanooga.

Mr. Sullivan explained that the Chattanooga company was a subsidiary of American Water Works Company, the largest investor-owned water utility in the U.S., operating 23 companies in 21 states throughout the country. He explained how their operation was based upon freedom: to do business; to offer services to the marketplace; and to undertake risk and receive reward. Mr. Sullivan told how the Chattanooga water company founding dated from 1863 during the Civil War, when Union soldiers under General U.S. Grant built the first water plant in the city. This was then sold at auction after the war to a private company known as Lookout Water Co. American Water Works purchased that company in 1887 and has continued operation since, now serving approximately 68,000 customers in a service area with a total population of about 250,000.

A map was displayed showing other smaller companies serving areas adjacent to Chattanooga some of which are operated by municipalities and other public authorities. The plant capacity (35.5 million gallons per day) and other details, including numbers of miles of underground mains, numbers of employees, and other information was also provided.

It was mentioned that all connections are metered and read monthly, with bills then issued. Annual revenue was about \$28 million with the average home using 164 gallons of water daily for which the billing rate was about \$185 per year. The maintenance and water quality laboratory operations were described. The plant has installed capacity to treat and pump 72 million gallons per day, but that actual usage was about 35.5 million gallons daily, with the excess attributed to capital construction that had been put into place to serve textile mills and other industrial users that had since closed down or moved away. Mr. Sullivan said that the company has about 15-16 percent unaccounted for water, which is the industry standard in



the U.S. Five or six years ago it had been as high as 22 percent, but that management had taken steps to reduce these losses.

The company officials described their relationship with the PSC as cordial, but said that did not always agree on what was a "fair rate of return." They said however, that they were always able to work out their differences, and that on balance, they believed that they were being treated fairly by the PSC. They said they had no competitors in their service area.

Company spokesman said that the PSC regulates them with respect to rates and makes certain that they satisfy the needs of their customers, but that other agencies, i.e., the Tennessee Dept. of Health regulates water quality, and the U.S. Environmental Protection Agency enforce environmental standards. Similarly, OSHA (Occupational Safety and Health Administration) inspects and regulates safety conditions in the workplace, particularly in risk situations such as street excavations.

It was stated that all the raw water Tennessee-American uses is abstracted from a surface source - the Cumberland River—and that their tariff rates were comparable to other river abstracting utilities. They said that in the U.S., about 20 percent of water utilities are privately owned with 80 percent city or other public-entity owned and operated. They stated that there were good and not so good utilities, both private and public.

Business Manager Dr. Bailey said that the company had \$104 million in total cumulative investment calculated at original cost and appreciation, but that replacement cost at today's prices would be at least ten times this amount. He said the company periodically conducts a planning exercise to assure that they can continue to meet the needs of their customers. He added that the raw river water is plentiful (they use less than 10 percent of the flow), thus they do not interfere with river navigation, and that the quality of the water is good, not requiring extensive treatment to make it potable.

Following the presentation and a question and answer session, the group was served luncheon before departing for a field visit to examine the main intake pumping facility and treatment plant. The group started their visit at the control room, and later observed all the treatment facilities, including the large storage tanks.

At the end of the tour of the pumping, treatment and storage facilities, the group returned to Nashville where they enplaned for return to Washington, DC.

### ***Washington Suburban Sanitary Commission (WSSC) Site Visit***

The Albanian group visited WSSC, a bi-county (Montgomery and Prince Georges) water and wastewater utility serving 1.5 million customers in a service areas of over 1,000 square miles.

WSSC presenters started with an organization overview by WSSC Communications Director Patricia Robinson who said that WSSC operates two water filtration treatment facilities: the Potomac plant, with a capacity of 285 million gallons per day (average 120 mgd); and the Patuxent plant, with 72 mgd capacity (50 mgd average output). WSSC has 17 billion gallons of raw water storage capacity, and access to an additional 30 billion gals. stored at the Buckett Reservoir and Dam operated by the U.S. Army Corps of Engineers (about 200 miles upstream on the Potomac). Other activities performed include operation of a storm-water retention system and other flood control facilities, tree farming and recreation facilities in the watershed areas, as well as the operation of 5 wastewater treatment plants with a combined capacity of about 68 million gallons per day. They also have an agreement for utilizing some of the capacity of the Blue Plains Waste Water treatment plant in the District of Columbia (370 mgd capacity—the largest such plant in the world). WSSC has a total of 2,156 employees, a ratio of one employee for each 696 customers. Included in their waste disposal facilities is a regional composting plant which mixes sludge from the waste water facilities with wood chips for agricultural use.

Next the Albanian delegation was provided a financial presentation by Mr. T. Street, WSSC Budget Director, who provided a detailed description of their capital investment planning process, which is performed each year for the ensuing 6-year cycle. In the course of the financial presentation, it was acknowledged that water and sewer charges for Montgomery and Prince Georges County residents is the highest in the United States.

According to the Budget Director, this is attributable to two main reasons:

- That until recently, WSSC had not charged developers or local authorities an impact fee or contribution to share the heavy and costly burden of new service installation, which had been occurring at explosive rates of growth over a number of years; and
- That given the sensitivity of being in the Nation's Capitol area, whose heavily polluted Potomac River had to be cleaned up, and the proximity of the Chesapeake Bay, with its strong and articulate advocates for its protection and restoration, all of the wastewater treatment facilities operated by WSSC were held to the highest standard of tertiary treatment, which is very costly.

Accordingly, there were unusually heavy operating costs which had to be passed on to the customers.

According to the Budget Director, this situation is improving, as there is burden sharing and increasing use of borrowing through bonds and other less costly ways to finance new construction, and maintenance. Eventually, within a number of years, rates will diminish until WSSC finds its rate structure somewhere closer to the median of all US water rate payers, rather than the highest as it is now, he said.

The final presentations were by WSSC Environmental officials who described the environmental protection programs carried out by WSSC, including authority delegated to it by the State of Maryland to issue environmental permits to local authorities and contractors, and



their program to train contractor employees how to avoid sedimentation and erosion violations in various construction activities.

### ***Maryland Public Service Commission Site Visit***

The Albanian group visited the Baltimore offices of the Maryland Public Service Commission (PSC) where they were greeted by Mr. Frank Fulton, Director of the Consumer Assistance Office, and Chief Engineer Joseph Walter. The Maryland PSC regulates gas, electricity, water, telecommunications, steam, and taxis.

The group was told there are 300 community water treatment systems in Maryland, with most of the largest systems (such as WSSC) owned and operated by cities or county authorities. The PSC only regulates tariff rates and service provision of privately-owned systems, of which there are about 30 in number. (Public systems are self-regulating).

PSC assures that rates are fair and that service quality is maintained. In rate setting, the PSC reviews the physical plant facilities, operating expenses, staffing levels, age and technical capacity of the equipment, chemicals used, etc. to determine a rate based on cost recovery plus a "reasonable" profit. PSC's budget is financed by fees charged to utilities.

Once set, rates remain in effect until the utility petitions for an increase. Since there is no competition, the regulation is based in cost of service calculations. It was explained that the very smaller water companies are harder to regulate; because of their size, they lack economies of scale.

The Governor of Maryland appoints the five commissioners for five-year terms, with the Chairman having a vote equal to the others. PSC is staffed with attorneys, engineers and economists.

### ***Dale Service Corporation Site Visit***

The participants visited the Dale Service Corporation, a small, privately operated wastewater treatment plant. The General Manager, Mr. Norris Sisson, gave the history of the plant, saying that when the Prince William County authorities were unwilling to extend water and wastewater services to the area, a private investor constructed these facilities on behalf of a developer who wanted to construct new subdivisions of town houses, other single occupancy dwellings, and associated shopping and commercial facilities.

Within a few years, the County purchased the water treatment plant and integrated it into their system, but the wastewater plant has remained under private ownership and operation, with rates regulated by the Virginia State Corporation Commission in Richmond, and water quality regulated by the Health Department and Environmental Quality divisions of the State of Virginia.

Given the nature of its origin, the State Corporation Commission was unwilling to let the Dale City plant earn a profit, although Mr. Sisson explained that it was so efficient it was able to charge customers about \$10 per month less than the county charges in its adjacent service area.

Given the inflation over the years which would have made replacement cost very expensive, the company argued before the State Corporation Commission that, because as a private company it could not issue revenue bonds, it instead be allowed to retain its surplus of revenue over operating costs, as a reserve for future expansion and depreciation of capital facilities needing replacement at the end of their service life cycle. This view prevailed, and the Dale Service Corporation is currently accumulating reserve funds.

The group walked through the treatment plant facilities, following the process from raw sewerage intake, through primary settlement, secondary chemical treatment, and tertiary treatment before the effluent is discharged to a stream which is part of the Potomac River watershed. Sludge accumulated at the bottom of the settling tanks is de-watered and trucked away for agricultural use as nutrient fertilizer.

The plant installation is about 35 years old, but is so well run that the operators have not had problems meeting effluent discharge standards set by the Virginia Department of Environmental Quality (DEQ). The Albanian visitors were particularly appreciative of the opportunity for making this site visit, since the scale and technology was readily understood and considered comparable to what would be appropriate for Albania.

### ***Virginia Department of Environmental Quality Northern Region Site Visit***

The regional Water Compliance Manager, Mr. Charles B. Williamson, made the presentation, explaining that his department licenses private operators of water and wastewater treatment plants. To provide background he described the business and engineering aspects of water utilities, including design, construction, operation, maintenance, and financial management. He explained that they are required to be regulated since, because of the high capital investment in their construction, they would have monopoly status. He added that, although responsible for assuring that operators comply with environmental standards, he was mindful that rates charged by all utility operators must cover capital costs, operating costs, maintenance costs, and that in addition for investor-owned utilities there must be profit reflecting a reasonable return on investment.

Mr. Williamson described the evolution of concern about water quality in the U.S. which had led to the enactment of the Clean Water Act. Firstly, he said the original concern was about providing water sources free from pathogens or disease-carrying organisms. This led to primary treatment, screening, settling and disinfection, resulting in 30 percent to 40 percent of contaminant removals.

The next stage of concern was about water quality impacts which led in wastewater management to the use of secondary treatment including biological processes, and activated



sludge treatment. Here the standards were pH (acidity), biological oxygen demand (BOD), dissolved oxygen and TSS (suspended solids). These systems resulted in 80 percent of waste removal.

Tertiary treatment or advance waste treatment may be chemical, biological or physical processes, depending on the local requirements which are based on water quality standards applied to the effluent before discharge. The determination is based on what the natural stream system can assimilate without degradation.

Another concern is natural or industrially caused toxicity, with a requirement to identify and remove toxic pollutants. This is based on specific biological testing of the effluent and then the application of remedial treatment.

It was explained that the national government, Congress and federal agencies, enact and enforce standards such as the Clean Water Act and the Safe Drinking Water Act, but that in most cases, enforcement is delegated to the states, particularly where the state standards are more stringent than the national one.

Mr. Williamson outlined the procedures his agency and other Virginia agencies follow by reviewing and permitting each stage of water and wastewater plants coming into operation, starting with the design, then construction, operation, maintenance, and testing of the final product. He explained how the Department of Environmental Quality (DEQ) shares this responsibility with the Virginia Department of Health. One or the other actually issue construction permits, Certificates to Operate, and Operating Permits.

Mr. Williamson also explained the self-monitoring requirements, with each operator required to submit monthly effluent quality reports, and Discharge Monitoring Reports. All operators are held to strict reporting and record-keeping requirements. Mr. Williamson also described their inspection regime to insure continuing compliance. This includes technical observation, examination of laboratory procedures, and review of all plant records, including training and operation manuals, lab reports, and lab equipment maintenance and recalibration.

### **World Bank Site Visit**

The Albanian group visited the World Bank headquarters for presentations by the Albania Country Director, Mr. Julius G. Varallyay, Mr. Vincent Gouarne, Water Project Officer, and other World Bank staff. The Bank officials reviewed the three tracks along which activities are being conducted leading to a public-private partnership arrangements for the water sector in Albania. This included:

- Establishing an enabling legal and regulatory framework;
- Implementation of privatization, specifically, preparation of bid and tender documents leading to the selection and engagement of a strategic private investor; and

— Approval and implementation of an IDA Capital Loan for rehabilitation of the Tirana water system (approximately \$20 million).

There was discussion of the respective roles of the Bank staff, Bank consultants, and USAID consultants in assuring that progress along each of these tracks continues and is synchronized and coordinated. For example, USAID consultants were largely involved with the first topic, Bank consultants under the PPF were involved in the second, while the Bank staff would be handling the third, the documentation and preparation for World Bank Board approval and disbursement of the loan.

There was acknowledgment that all parties—the World Bank and its consultants, the USAID consultants and the Albanian officials—needed to work energetically and harmoniously to maintain momentum of the program, and there were expressions of appreciation by the Bank to the Albanians for their seriousness and dedication to the tasks at hand.

During the discussion, the Albanians explained how they intended to keep carrying out their responsibilities on schedule by completing "next steps" related to their review and approval for selection of the World Bank consultants and endorsement of their terms of reference. They said they would be streamlining their Task Force structure, and assured the World Bank they would closely monitor parliamentary actions to make certain that the entire legislative and policy framework was fully in place, to facilitate identification, selection, and contracting with the strategic investor. Mr. Demiri explained that he would be calling upon IP3 consultants to sustain momentum and coordinate these on-going activities. In reply, the World Bank spokesman, Mr. Varallyay said the Bank endorsed the efforts of the Albanians to use USAID and other resources in helping to complete in timely manner all necessary actions required for program success.

### **Summary Results**

By the end of the program, the Albanian participants had been provided coverage, in considerable detail, of all the key aspects involved in regulation and private operation of water and wastewater treatment. Given the intensive and technical nature of the material covered, and some limitation in understanding due to the necessity for translating all the presentations into Albanian language, IP3 staff acquired a library of more technical materials and reports such as operations manuals, agency and company rules and regulations, brochures and training materials, etc. from each of the site visit presenters. These will be drawn upon as appropriate during follow-up consulting assignments in Albania.

The wind-up of the study tour was marked by the conduct of two final action planning sessions, with the initial planning session held at the Urban Institute on February 29, which was attended by Messrs. Jeff Telgarsky, UI Project Director, and Steve Swanson, Resident Advisor for urban infrastructure (who had participated in the entire study tour program). Also attending was Ms. Nancy Hooft, USAID Eastern Europe Regional Housing Project Officer. The Albanian participants described the significance of the study tour program in helping them





formulate next steps upon their return to Albania. Mr. Swanson described his expected role on the ground in Albania, to constantly monitor progress of the program and being able to provide a continuous supporting presence of the USAID prime contractor. Mr. Swanson indicated that water sector privatization and the regulatory effort would be high on his priority list for allocating his attention to urban development activities in Albania, sharing the same concerns with the Albanian officials.

Ms. Hooff reconfirmed USAID's best efforts to continue support for the program, and she expressed satisfaction that the schedule and content of the study tour had been timely and responsive to the Albanian requirements.

The final wrap-up of future program planning initiated during the Urban Institute visit, was concluded during a final planning session with the group on Saturday, March 2. At this session, Mr. Demiri stressed that immediately upon his return to Tirana he would make certain that the Parliamentary process was proceeding, and he was confident that the Minister would approve the designation of two or three persons on a full-time basis to get the regulatory commission established, but he added that there was a range of further important actions to be concluded, dealing with various key components listed in the draft work plan. Mr. Demiri indicated that he and the Minister were delighted that the Urban Institute had designated Steve Swanson to take up full time residence in Albania starting in April. He added, however that he hoped the next team of USAID consultants could arrive in Tirana before the end of March so that program progress stimulated by the study tour could be sustained.

It became apparent from these planning sessions that there was full appreciation by the Albanian participants that they now needed to design and conscientiously carry out a detailed action plan, effectively addressing each of the components that would be needed to bring the program to a satisfactory conclusion.

In the final planning session it was agreed that Action Plan tasks could be grouped into three major categories:

- *Legislative Agenda.* Making certain all of the draft legislation tabled by the Council of Ministers would be enacted without substantive change by the Parliament, and that the complete range of laws affecting the climate for private sector investment and operations in Albania (such as labor laws, taxes, etc.), as well as the regulatory, concession, corporatization and water resources laws, were all in harmony and relevant.
- *Administrative Agenda.* Establishing the structure, organization, and procedures of the Regulatory Commission, getting its budget approved, and physical location and facilities determined and established. Staffing and policies would need to be agreed upon.
- *Oversight and Coordination of World Bank Consultants .* This would include monitoring of each step, starting with selection, contracting, terms of reference refinement, time schedules, and on-going procedures related to marketing and inducing investors, such as

organizing a bidders' conference, and overseeing the reports and activities as key events take place.

It was suggested that upon the group's return to Albania, that a number of decisive actions be taken promptly, e.g.:

- Consolidation of the two task forces into a single, smaller and quicker responding group; and
- Immediate designation of two to three full-time and interim staff officers of the Regulatory Commission, who would open the office and establish a single and continuous point of contact to begin implementation of the Commission's responsibilities.

Also mentioned was the need for immediate assignment of USAID consultants to assist in the performance of priority tasks, for which a series of task orders would need to be carried out. It was noted that the first USAID consultants should be scheduled for arrival in Tirana before the end of March 1996, in order to maintain close coordination with World Bank Activities (see Work Plan, Annex A).



## **ANNEX A**

### **ACTION PLAN FOR ALBANIAN REGULATORY AND PRIVATIZATION ACTIVITIES**



## **ANNEX A**

### **ACTION PLAN FOR ALBANIAN REGULATORY AND PRIVATIZATION ACTIVITIES**

In the final session of the observational study tour, participants agreed on the urgency of developing an action plan to follow up on findings and recommendations resulting from the site visits and round table discussions which had taken place during the study tour.

It was further agreed that necessary tasks to be performed by the USAID consultants should be ranked in priority order and then organized in a schedule that would follow an orderly sequence of activities to be conducted as needed and in synchronization with the World Bank program.

Mr. Demiri requested that the Action Plan tasks be consolidated—initially—into a three-month rolling program with activities grouped into topical categories. It was agreed that task orders would ideally be performed sequentially on the basis of time urgency and economies of scale, with the possibility of combining, in task orders for technical consulting teams, various tasks ranked in about the same priority order.

The following were the agreed major categories:

- World Bank Oversight and Coordination
- Administrative/Financial/Corporatization Agenda
- Legislative Agenda

#### **First Priority Regulatory Task: World Bank Oversight and Coordination**

- Prepare the bid and tender documents, organize marketing, including planning and conduct of a bidder's conference, and other tasks related to privatization. Provide advice or scoping terms of reference and negotiating contract. (Category: IBRD oversight)
- Advise and assist in the merging of the two task forces—privatization and regulation— into a single entity; support the mobilization of the first ad interim full-time paid professional staff members of the regulatory commission, and assist in the establishment of the pro forma budget and any necessary inter-agency agreements to establish the ad interim commission office. (Category: Administrative/financial/corporatization agenda)
- Advise and support the MOCT leadership and task force members in shepherding the package of water regulatory and privatization enabling legislation through timely enactment by the Parliament. Be available for lobbying, clarifying issues, answering questions, and otherwise assuring that passage of the enabling laws took place smoothly and without substantive amendments. Review other legislation comprising the private business investment climate, e.g. related to dispute resolution, procurement laws and procedures, labor laws, public health, and environmental enactments and administration, etc., to assure that no problems arise from any quarter that could adversely affect establishment of the public-private partnership framework for the water sector. Particularly to be alert to any problems arising from



the relationship between the Ministries of Finance and Construction and Tourism, with regard to the amended Corporatization Law. (Category: Legislative Agenda)

- Regional water enterprise operational review in major cities outside of Tirana and Durres (Korca, Elbasan, Gjirokastra, Vlora, etc.). Determine status of corporatization action, governance issues; make recommendations for action.

Proposed Level of Effort:	4-5 person-weeks
Proposed Candidates:	Jerry Donovan, Esq. Matthew Hensley Phil Giantris
Proposed Start Date:	March 25, 1996

**Second Priority Regulatory Task:  
Establishing Rate-Setting Methodology and Administrative Procedures**

- Prepare an issues paper/recommended strategy, for consideration by Mr. Demiri and Minister Shehi, exploring options and leading to design and development of an appropriate rate-setting methodology for Albania, as between such choices as rate of return vs. price cap analysis. Merits and demerits of both systems need to be contrasted and a determination made as to which is best for Albania. Rules and regulations for their application and use to be developed. (Category: Administrative/financial/corporatization agenda)

- Determination of accounting standards to be utilized by both the Regulatory commission and the private contractors or investor operators of water and waste water treatment plant operators. Reconciliation needs to be made between internationally accepted Chart of Accounts suitable for the industry such as those of the National Association of Regulatory Utility Commissioners (NARUC), and the existing accounting code and law in effect in Albania. (Category: Administrative/financial/corporatization agenda)

- Develop initial rules and regulations governing the rule making, adjudication, and dispute settlement procedures of the Regulatory Commission. Establish basic operating rules and regulations for functions of the Regulatory Commission. (Category: Administrative/financial/corporatization agenda)

Proposed Level of Effort:	6 person-weeks
Proposed Candidates:	David Jones David Levintow Gary Powell (Regulatory Economist)
Proposed Start Date:	May 1, 1996

**Third Priority Regulatory Task: Legislative Agenda—  
Drafting and Refinement of Foundation Documents for the Regulatory  
Commission**

- Develop internal organization charts, job descriptions, budget program, and procedures for the Regulatory Commission. Detailed design of administrative structure, function allocations, reporting relationships, decision hierarchy, and implications for developing a detailed budget submission.
- Establish regime for application and enforcement of public health standards of water quality, and environmental quality controls of raw water intake and wastewater effluent from treatment plants. This will involve coordination with companion agencies, and inter-agency agreements on who will be responsible for setting standards and the enforcement of these standards. Review of the Parliamentary amendments incorporated into the Water Resources Law, and clarification of compliance responsibility.
- Legislative impact review of all relevant Albanian laws, such as labor laws, commercial code, procurement laws, etc. to determine their impact on firms operating water, wastewater or solid waste activities in Albania.

Proposed Level of Effort:	4 person-weeks
Proposed Candidates:	Phil Giantris Mark Belcher
Proposed Start Date:	June 1, 1996





## **ANNEX B**

### **STUDY TOUR SCHEDULE**